



REMARKS

Claims 27-28 have been amended. Claims 1, 2, 4-6, 8, 10-11, 18-22, and 26-35 are pending in the application.

Section 112 Rejections

The Office Action rejected claims 27-29 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Claims 27-28 have been amended. The Applicants respectfully point out that claim 29 does not recite "the first voltage" or "the second voltage". The Applicants respectfully request the Examiner withdraw the objection as to claims 27-29.

Section 103(a) Rejections

The Office Action rejected claims 1, 2, 4-6, 8-10, 11, 18-22 and 26-35 under 35 U.S.C. § 103(a) as being unpatentable over Heberling (U.S. Patent 4,938,701) (hereinafter "Heberling") or Amberg et al. (U.S. Patent 6,075,704) (hereinafter "Amberg") or Leman (U.S. Patent 6,261,104) (hereinafter "Leman") in view of Broeksteeg (U.S. Patent 5,066,236) (hereinafter "Broeksteeg"), Amberg, Lee et al. (U.S. Patent 5,454,726) (hereinafter "Lee"), Provencher et al. (U.S. Patent 5,860,816) (hereinafter "Provencher"), Fox (U.S. Patent 3,181,101) (hereinafter "Fox"), HDM (hereinafter "HDM"), Dent (U.S. Patent 5,793,617) (hereinafter "Dent"), Weber et al. (U.S. Patent 4,820,169) (hereinafter "Weber"), Masuda et al. (U.S. Patent 5,616,034) (hereinafter "Masuda"), Siwinski (U.S. Patent 5,116,239) (hereinafter "Siwinski"), and Chen et al. (U.S. Patent 5,472,354) (hereinafter "Chen"). Applicants respectfully traverse the rejection as to the currently pending claims.

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The Applicants respectfully reassert that the Examiner has not presented a prima facie case for combining any of the cited references. As stated in the MPEP section 2143, for a prima facie case “First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.” Applicants believe that the Examiner has not met any prongs of this test. There is no teaching either in the references cited or in the prior art to show how to combine the elements of Heberling or Amberg or Leman with elements of Broeksteeg, Amberg, Lee, Provencher, Fox, HDM, Dent, Weber, Masuda, Siwinski, and Chen.

Furthermore, the references cited by the Examiner teach away from each other. For example, Heberling teaches the use of a connecting bracket connecting “the first and second circuit board... in an end-abutting relationship (emphasis added) (col. 2, lines 29-30).” Broeksteeg (Figure 1), Amberg (Figure 1), Lee (Figure 1), Provencher (Figure 1), Fox (Figure 3), HDM (main figure), Weber (Figure 1), Masuda (Figure 1), Siwinski (Figure 1), and Chen (Figure 1) teach connectors with connecting parts between the boards. There is no teaching in Heberling or these other references to adapt the connectors of the other references to use the connecting bracket of Heberling.

In addition, each of the connectors shown in the references cited by the Examiner use and depend on specific features to work; however, these features are not readily combinable. Furthermore, none of the references teach how to adapt these features to be used with the features, depended on by the Examiner, of the other references. Several examples of features for which there is no prior art to show how to combine, but yet have been depended on by the Examiner in his obviousness rejection include, but are not limited to:

a. Lee uses a “metal frame 20, and upper and lower insulating resin bodies 22a and 22b inserted into the metal frame 20 (col. 2, lines 65-66).”

b. Broeksteeg uses “inserts 60, when stacked together, ensure that the blade sections 72c, 73c, 74c, and 75c, are aligned with the vertical slot 20 which disposes the plurality of opposed contact portions 68-71 adjacent

Heberling
does not
connect

to the narrow aperture 18 at the front mating face of the connector (col. 5, lines 39-44).”

c. Provencher’s “shield 116 and 118 (for wafer 114 recesses) makes electrical connection at two points to a contact element 410 and... there is a break in the contact element 410 between these two points (col. 3, lines 2-5).”

d. Fox teaches a “U-shaped guide and holder J at each side of one of the boards (col. 2, lines 21-22)” which are not parts of any connector even within the Fox reference.

e. The connectors of the HDM reference “mate interchangeably with standard HDM backplane signal modules (page 1).”

f. The connectors of the Weber and Siwinski reference are used to connect boards and/or cables in a perpendicular arrangement (see Figure 1 of each reference).

For example, there is no teaching available to show how the substantially coplanar supports and wafers of Lee can be used with the ninety degree inserts of Broeksteeg or Provencher. As another example, there is no teaching available to combine the U-shaped guides of Fox with HDM connectors that mate interchangeably with standard HDM backplane signal modules. As yet another example, there is no available teaching to combine the connectors of Weber and Siwinski, which are designed for perpendicular arrangements, with the above cited art designed for non-perpendicular connections. None of the cited references teach how these or other elements from the cited references can be combined into a single connector as recited in Applicants’ claims.

Applicants assert claims 1, 10, 18, 26, and 31 and claims 2, 4-6, 8 and 11 and 19-22 and 27-29 and 32-35 dependent on claims 1, 10, 18, 26, and 31, respectively, are allowable for at least the above stated reasons.

Applicants further assert that none of the cited references disclose, suggest, or teach “a conductive layer coupled to one or more compliant pins” as recited by claim 10. Furthermore, the Examiner has not provided a reference or any reasoning for this element

of claim 10. Applicants also assert that none of the cited references disclose “the expander board couples the first board to a switch” as recited by claim 11.

The Office Action has rejected claims 26-29 under 35 U.S.C. 103(a) as being unpatentable over Broeksteeg in view of Weber, HDM, Fox, Masuda, and Dent. Applicants respectfully traverse the rejection.

For similar reasons as stated above, Applicants assert claim 26 and claims 27-29 dependent on claim 26 are allowable.



CONCLUSION

In light of the foregoing remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

The Commissioner is authorized to charge any fees which may be required, or credit any overpayment, to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 50-1505\5681-49300\BNK.

Respectfully submitted,

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